Tightening torques		Nm
Nuts for cylinder head cover		15
Necked-down screw for camshaft sprocket		80
Fastening screw for injection timer		40
Coupling nuts for injection lines		25
Closing plug for chain tensioner		90
Socket 27 mm, 1/2" square, for rotating engine	11004_8193	001 589 65 09 00
Box wrench socket, open, 17 mm, 1/2" square, for injection lines	11004-6359	000 589 68 03 00
Impact puller for bearing bolt (basic unit)	11064-6220	116 589 20 33 00
Threaded bolt M 6, 50 mm long for impact puller	السَّسَةِ 11004-6366	116 589 01 34 00
Articulated wrench	11004 - 6372	000 589 21 07 22
Overflow pipe	11004-6376	636 589 02 23 00
Holding plate	9/159-100H	616 589 02 40 00

# Note

The injection timer is mounted on intermediate sprocket shaft with a screw M 10 x 45 (95).

On engine 617.950 with double diaphragm vacuum pump, the screw has a hollow shaft.

The vacuum pump is provided with the required oil through this hollow screw.

# Layout of double diaphragm vacuum pump

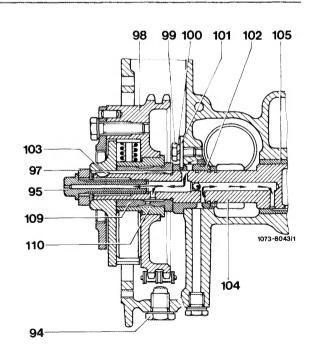
94 Chain locking screw 101 95 Screw M 10 x 45 102

Washer

98 99 Injection timer Screw M 6 x 12 Snap ring B 6 Lock washer

Bearing bushing front

103 Woodruff key
104 Intermediate sprocket shaft
105 Bearing bushing rear
109 Bearing bushing injection timer



On engines with piston vacuum pump, screw (95) is not hollow.

Do not mix up screws (95).

# Layout with piston vacuum pump

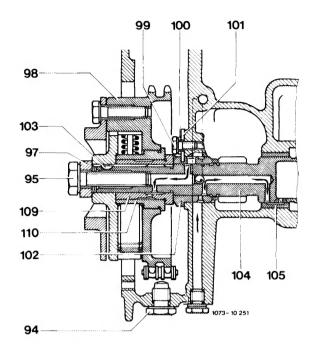
Locking screw Screw M 10 x 45 97 Washer

98 Injection timer 99 Screw M 6 x 12 100 Snap ring B 6 Lock washer

Bearing bushing front

103 Woodruff key 104

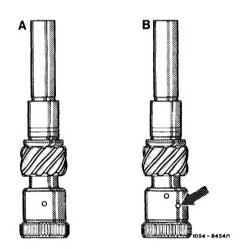
Intermediate sprocket shaft Bearing bushing rear Bearing bushing 105



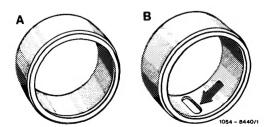
On engine 617.950 since August 1978, and on engines 617.951/952 since start of series, the intermediate sprocket shaft (B) and the rear bearing bushing (B) of engines 615, 616 and 617.912 are installed for reasons of standardization.

These parts can also be installed on engines 617.950 manufactured at an earlier date.

- Intermediate sprocket shaft 1st version
- Intermediate sprocket shaft 2nd version



- Rear bearing bushing 1st version Rear bearing bushing 2nd version



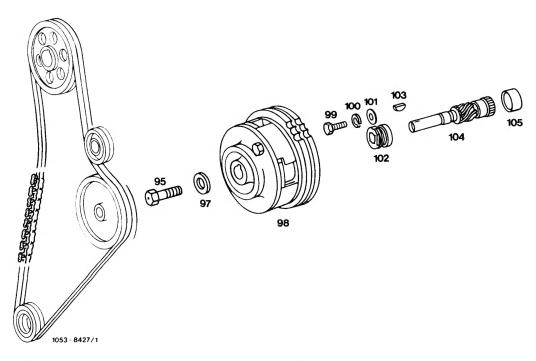
# Removal

- 1 Remove fan and radiator shell.
- 2 Remove vacuum pump (42-610).
- 3 Remove injection timer (07.1-210).
- 4 Remove injection pump (07.1-180).
- 5 Pull out intermediate sprocket shaft toward the

# Installation

- 6 Insert intermediate sprocket shaft from the rear.
- 7 Install injection timer (07.1-210).
- 8 Install injection pump (07.1-180).
- 9 Check timing of camshaft (05-215) and begin of delivery (injection timing) of injection pump (07.1-110).
- 10 Install vacuum pump (42-610).
- 11 Install fan and radiator shell.

# Intermediate sprocket shaft and injection timer



- 95 Screw M 10 x 45
- Injection timer
- Screw M 6 x 12 100 Snap ring B 6

- Lock washer
- Bearing bushing front
- 103
- Woodruff key Intermediate sprocket shaft
- 105 Bearing bushing rear